



**SPECIFICATION FOR HCMOS SMT OSCILLATOR**  
**MtronPTI P/N M2002T266**

**I. General & Electrical Specifications:**

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Frequency of Operation	F <sub>O</sub>		40.000000		MHz	
<b>Frequency Stability</b>						
Frequency Stability	ΔF/F	-50		+50	ppm	Includes initial accuracy @ +25°C, deviation over temperature, supply voltage variation, load variation, shock and vibration.
Aging		-3		+3	ppm	1 <sup>st</sup> year
		-2		+2		Thereafter (per year)
<b>RF Output</b>						
Output Type		HCMOS/TTL Compatible				
Output Load				15/2	pF/TTL	
Symmetry (duty cycle)	T <sub>DC</sub>	45	50	55	%	Ref to ½ V <sub>DD</sub>
Logic "1" Level	V <sub>OH</sub>	90% V <sub>DD</sub> V <sub>DD</sub> - 0.5			V	HCMOS Load TTL Load
Logic "0" Level	V <sub>OL</sub>			10% V <sub>DD</sub> 0.5	V	HCMOS Load TTL Load
Rise/Fall Time	T <sub>R</sub> /T <sub>F</sub>			6	nS	Ref. to 0.4 V to 2.8 V
Start-Up Time				10	mS	
Tristate Logic		Logic "1" or Open			V	Pad 1: Output Enabled
		Logic "0"				Pad 1: Output Disabled to high-Z
<b>Other Parameters</b>						
Random Jitter	R <sub>J</sub>		4	10	pS RMS	1-Sigma
<b>Supply Voltage &amp; Power Consumption</b>						
Operating Voltage	V <sub>DD</sub>	3.0	3.3	3.6	V	
Operating Current	I <sub>DD</sub>			20	mA	

**II. Environmental & Mechanical Requirements:**

Operating Temperature	T <sub>A</sub>	-55		+125	°C	
Storage Temperature	T <sub>S</sub>	-55		+125	°C	
Mechanical Shock	Per MIL-STD-202, Method 213, Condition C (100 g's, 6 ms duration, ½ sinewave)					
Vibration	Per MIL-STD-202, Method 201 & 204 (10 g's from 10-2000 Hz)					
Hermeticity	Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm cc/s of Helium)					
Solderability	Per EIAJ-STD-002					
Max. Soldering Conditions	See solder profile, Figure 1					
Package Type	4-pad 5 X 7 X 1.9 mm leadless ceramic. Solder tinned pads (SnPb).					

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### III. Dimensions, Marking, and Pin Out Information:

Pad	Function
1	Tristate
2	Ground
3	Output
4	+V <sub>DD</sub>

Part Marking	
Line 1	M2002T266
Line 2	40M0000
Line 3	M yy ww vv

Legend	
yy	Year
ww	Work week
vv	Factory code

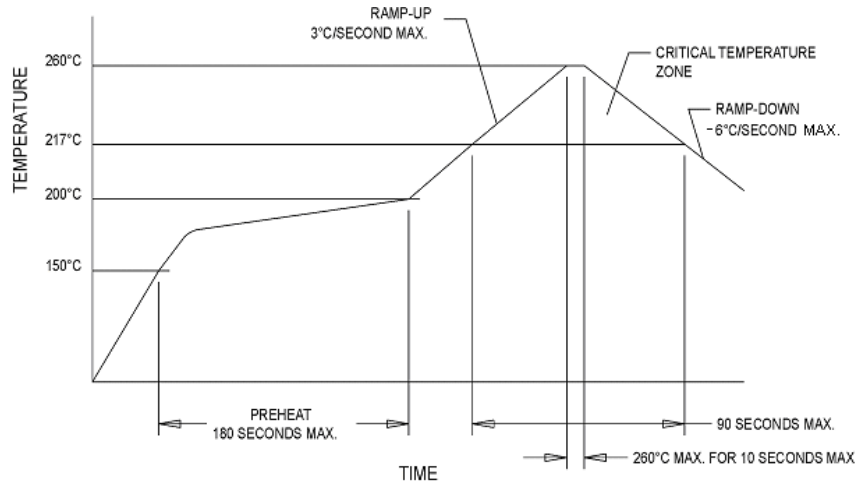
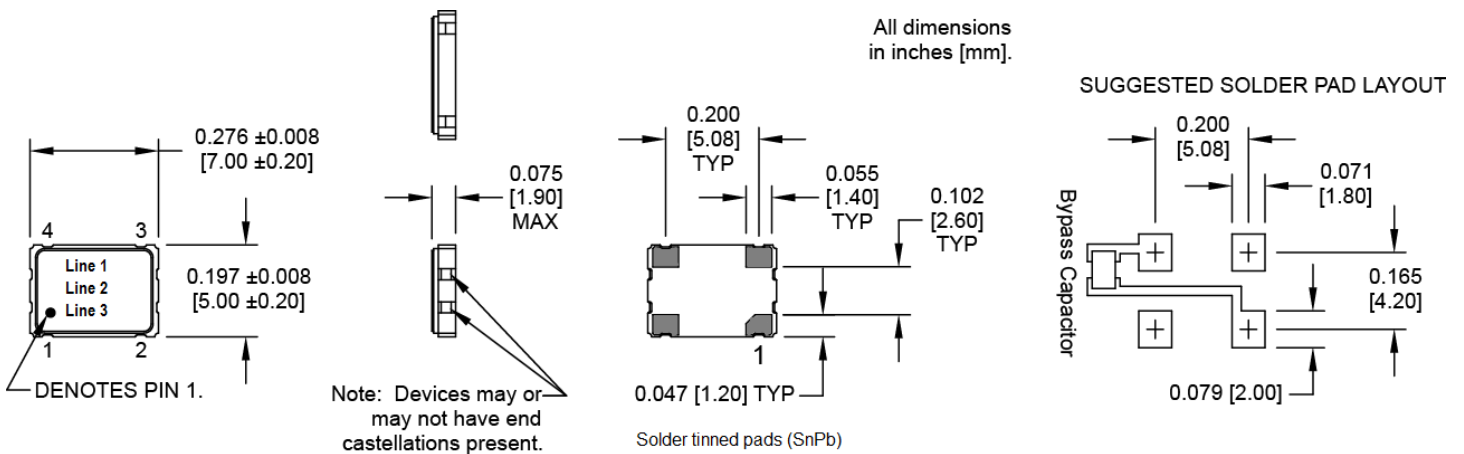


Figure 1

### IV. Datasheet Revision Table:

Date	Rev.	Author	Details of Revision
4/14/15	A	DPD	Added Honeywell part number in the datasheet
3/19/15	0	MM	Original release.